

Board Administration and Regulatory Coordination Unit

Division 3. Air Resources Board

Chapter 5. Standards for Motor Vehicle Fuels

Article 3. Specifications for Alternative Motor Vehicle Fuels

§ 2292.5. Specifications for Compressed Natural Gas.

The following standards apply to compressed natural gas
(The identified test methods are incorporated herein by reference):

Specifications for Compressed Natural Gas

<i>Specification</i>	<i>Value</i>	<i>Test Method</i>
Hydrocarbons (expressed as mole percent)		
Methane	88.0 % (min.)	ASTM D 1945-81
Ethane	6.0 % (max.)	ASTM D 1945-81
C3 and higher HC	3.0 % (max.)	ASTM D 1945-81
C6 and higher HC	0.2 % (max.)	ASTM D 1945-81
Other Species (expressed as mole percent unless otherwise indicated)		
Hydrogen	0.1 % (max.)	ASTM D 2650-88
Carbon monoxide	0.1 % (max.)	ASTM D 2650-88
Oxygen	1.0 % (max.)	ASTM D 1945-81
Inert Gases		
Sum of CO2 and N2	1.5-4.5 % (range)	ASTM D 1945-81
Water	^a	
Particulate matter	^b	
Odorant	^c	
<i>Specification</i>	<i>Value</i>	<i>Test Method</i>
Sulfur	16 ppm by vol. (max.)	Title 17 CCR Section 94112

^a The dewpoint at vehicle fuel storage container pressure shall be at least 10°F below the 99.0% winter design temperature listed in Chapter 24, Table 1, Climatic Conditions for the United States, in the American Society of Heating, Refrigerating and Air Conditioning Engineer's (ASHRAE) Handbook, 1989 fundamentals volume. Testing for water vapor shall be in accordance with ASTM D 1142-90, utilizing the Bureau of Mines apparatus.

^b The compressed natural gas shall not contain dust, sand, dirt, gums, oils, or other substances in an amount sufficient to be injurious to the fueling station equipment or the vehicle being fueled.

^c The natural gas at ambient conditions must have a distinctive odor potent enough for its presence to be detected down to a concentration in air of not over 1/5 (one-fifth) of the lower limit of flammability.

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018 and 43101, *Health and Safety Code*; and *Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District*, 14 Cal. 3d 411, 121 Cal. Rptr. 249 (1975). Reference: Sections 39000, 39001, 39002, 39003, 39010, 39500, 40000, 43000, 43016, 43018 and 43101, *Health and Safety Code*; and *Western Oil and Gas Ass'n. v. Orange County Air Pollution Control District*, 14 Cal. 3d 411, 121 Cal. Rptr. 249 (1975).

REFERENCE